

What is claimed is:

1. A control system for a hydrostatic unit having a swashplate comprising:
 - 5 an electronic means for producing a dithered output signal;
a pressure control adapted to receive the dithered output
signal and position the swashplate.
2. The control system for a hydrostatic unit of claim 1
10 wherein the electronic means is a microprocessor.
3. The control system of claim 2 wherein the
microprocessor receives information from a set point command
signal.
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4. The control system of claim 2 wherein the
microprocessor receives information from a feedback sensor.
5. The control system of claim 1 wherein the pressure
20 control is a flapper nozzle style pilot valve with two boost
spools.
6. The control system of claim 1 further comprising:
a servo system operably connected to the pressure control
25 and swashplate.
7. A method of controlling the angle of a swashplate of a
hydrostatic unit having a swashplate comprising steps of:
generating an electric signal based on a set point signal;
30 receiving the electric signal in a microprocessor;
interpolating the information from the electric signal using
an algorithm contained in the microprocessor;

sending an output signal from the microprocessor to a
pressure control;
dithering the output signal; and
generating a dithered pressure from the pressure control
5 that displaces the swashplate.

8. The method of claim 7 wherein the set point signal is
generated by measuring an operational parameter.

10 9. The method of claim 8 wherein the operational parameter
is the angle of the swashplate.

10. The method of claim 7 wherein the algorithm is a PID
type algorithm.

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11. The method of claim 7 wherein the algorithm is a PID +
feed forward algorithm.

12. The method of claim 7 wherein the algorithm is a KIDT1
20 algorithm.

13. The method of claim 7 wherein the pressure control is a
flapper nozzle style pilot valve with two boost spools.

25 14. The method of claim 7 wherein the pressure control is
a flapper nozzle style pilot valve with one boost spool.

15. The method of claim 7 wherein the pressure control is a
flow control.

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16. The method of claim 7 wherein the pressure control is
comprised of two pressure controls.

17. The method of claim 7 wherein the output signal is dithered by the pressure control.

5 18. The method of claim 7 wherein the output signal is dithered by the microprocessor.

19. A control system for a hydrostatic pump having a swashplate comprising:

10 a feedback sensor adapted to sense the angle of the swashplate;
a microprocessor adapted to receive information from the feedback sensor and produce a dithered output signal;
a pressure control adapted to receive the dithered output
15 signal and position the swashplate.

20. The control system of claim 19 wherein the microprocessor is also adapted to receive information from a set point command signal.

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